



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/724,382

11/26/2003

Kenneth N. Bates

51411/JEJ/B768

9673

23363 7590 01/29/2007
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

JAWORSKI, FRANCIS J

ART UNIT

PAPER NUMBER

3768

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/724,382

Applicant(s)

BATES ET AL.

Examiner

Jaworski Francis J.

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-33 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/08/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 9 - 10 as amended are rejected under 35 U.S.C. 103(a) as being unpatentable over Branigan et al (US5452717) alone or further in view of Vonesh et al (US5152293) as argued in the previous action, further in view of any one of Voegelé et al (US2004/0225217) or Hetz et al (US4545386) or Frei et al (US4250894).

Branigan et al as noted earlier is directed in Fig. 13 to a fingertip sensor including a sensor assembly 66, 68, a housing for mounting the sensor assembly onto a fingertip and including an inner housing 52 which per Fig. 14 is folded into a clam shape over the finger and an outer housing or finger cot 54 rolled out thereover, as described

col. 9 top portion.. [Note that applicants' claims do not distinguish whether the sensor is measuring the finger to which it is attached or being applied for measurement by the finger to which it is attached.]. Since the inner housing support 52 is separately sterilizable after each use while the cot is disposable, see col. 10 top, the inference is that the cot is separately sterilized. However it would have been inherently obvious to provide sufficient resulting sealant moisture proofing between the two since the intrinsic purpose of a finger cot is that of a barrier.

Whereas the former argument poses that there would be sufficient barrier seal for moisture prevention were the cot for example be dipped in a conventional disinfectant, Vonesh et al on the other hand evidences in col. 5 lines 29 – 31 that finger cot type sensors are also conventionally gas-sterilizable, under which procedure the threshold for moisture barrier formation is significantly lower than for example for an immersion type process. The fingercot portion is wearable on the very fingertip per fig. 6 prior to any folding of 52 against the finger body. It would have been obvious in view of the latter, for example in Voegelé et al when 165 and 167 are made integral then the transducers if potted confine the sensor assembly to the inner housing thereof such that the device which must be initially sterilized as shown would provide a moisture barrier between the outer and inner housing. Analogously in Hetz et al Fig. 6 and col.4 lines 20-23 the outer containment would provide a moisture barrier as well as sterility for the inner probe assembly, and finally in Frei et al Fig. 4 an inner wall 15 would create an inner housing pocket in which the sensor assembly is placed in moisture-proof isolation from whatever sterility is applied to the outer housing of the glove.

Claims 1 – 3, 9-10 as amended are rejected under 35 U.S.C. 103(a) as being unpatentable over Wedel et al ((US5088500) in view of Vonesh et al, alone or further in view of Oakley et al (US5413107), further in view of Voegele et al/Hetz et al/Freiet al. Wedel et al is applied in a fashion paralleling the rejection immediately above, namely, since Wedel et al finger probe housing 102 is surrounded by a complete rubber glove per col. 3 lines 22 – 24, it would have been inherently obvious that at least some impermeability to liquid disinfectant immersion would result, or in the alternative Vonesh et al is invoked as teaching that the disinfectant may be gaseous thereby placing a minimal moisture barrier requirement on the housing when sterilization is occurring. Vonesh et al additionally teaches that the ultrasound sensor such as in the former may be an array, see col. 3 bottom. Otherwise the latter references are applied as above.

Claims 4 – 6 as amended are rejected under 35 U.S.C. 103(a) as being unpatentable over the references, Branigan et al or Wedel et al-based, as applied to claim 1 above, and further in view of Al-Ali et al (US6671531) and Voegele et al/Hetz et al/Frei et al. Whereas the former are silent as to flex circuit usage, Al - Ali et al similarly directed to a fingertip sensor of the Branigan et al finger measuring type evidences that a flex circuit having conventiona metal conductors may be made bendable about the finger as in Fig. 2B and having wing and shoulder strain relieving portions as per Fig. 3 would have been well-known as a remote connection means to a fingertip transducer, the flex circuit language appearing in the col. 9 line 46 – 53 discussion therein. Otherwise the latter are applied as above.

Claim 7 as amended is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 4 above, and further in view of Ranalletta (US5630419) or Okubo (US6309358), further in view of Voegele et al/Hetz et al/Frei et al, since whereas the former are silent as to sterilization of a connector portion remote from the transducer assembly, it would have been obvious in view of the latter col. 4 lines 38 – 62 or the Abstract respectively to sterilize the cable and connector portion which egresses away from the transducer assembly in analogous devices such as the ultrasound array catheters which are the latters' genre.

Claim 8 as amended is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 7 above, and further in view of Steuer et al (US4407295), further in view of Voegele et al/Hetz et al/Frei et al since whereas the former are silent as to wrist attachment, it would have been obvious in view of the latter Figs. 5 – 7 to wrist-secure the remote connector for a fingertip sensor in order to confine the cabling in a fashion convenient to global use of the sensor hand.

Allowable Subject Matter

Claims 11 – 33 are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not


Art Unit: 3768

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

FJJ:fjj

011907



Francis J. Jaworski
Primary Examiner